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DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS
WASHINGTON

Letter
Circular
123

(June 30, 1924)

KILOCYCLE-METER CONVERSION TABLE.

The Department of Commerce specifies radio station assignments in both kilocycles and meters. The tendency of radio engineering practice is to use and express frequency in kilocycles rather than wave length in meters. "Kilo" means a thousand, and "cycle" means one complete alternation. The number of kilocycles indicates the number of thousands of times that the rapidly alternating current in the antenna repeats its flow in either direction in one second. The smaller the wave length in meters, the larger is the frequency in kilocycles. The numerical relation between the two is very simple. For approximate calculation, to obtain kilocycles, divide 300,000 by the number of meters; to obtain meters divide 300,000 by the number of kilocycles. For example, 100 meters equals approximately 3000 kilocycles, 300 m equals 1000 kc, 1000 m equals 300 kc, 3000 m equals 100 kc.

For highly accurate conversion the factor 299,820 should be used instead of 300,000. The table below gives accurate values of kilocycles corresponding to any number of meters and vice versa. The table is based on the factor 299,820, and gives values for every 10 kilocycles or meters. It should be particularly noticed that the table is entirely reversible; that is, for example, 50 kilocycles is 5996 meters, and also 50 meters is 5996 kilocycles. The range of the table is easily extended by shifting the decimal point; for example, one can not find 223 in the first column, but its equivalent is obtained by finding later in the table that 2230 kilocycles or meters is equivalent to 134.4 meters or kilocycles, from which 223 kilocycles or meters is equivalent to 1344 meters or kilocycles.

Kilocycles to Meters, or Meters to Kilocycles.
(Columns are interchangeable)

30	9994	480	624.6	920	325.9	1370	218.8
40	7496	490	611.9	930	322.4	1380	217.3
50	5996	500	599.6	940	319.0	1390	215.7
60	4997	510	587.9	950	315.6	1400	214.2
70	4283	520	576.6	960	312.3	1410	212.6
80	3748	530	565.7	970	309.1	1420	211.1
90	3331	540	555.2	980	303.9	1430	209.7
100	2998	550	545.1	990	302.8	1440	208.2
110	2726	560	535.4	1000	299.8	1450	206.8
120	2499	570	526.0	1010	296.9	1460	205.4
130	2306	580	516.9	1020	293.9	1470	204.0
140	2142	590	508.2	1030	291.1	1480	202.6
150	1999	600	499.7	1040	288.3	1490	201.2
160	1874	610	491.5	1050	285.5	1500	199.9
170	1764	620	483.6	1060	282.8	1510	198.6
180	1666	630	475.9	1070	280.2	1520	197.2
190	1578	640	468.5	1080	277.6	1530	196.0
200	1499	650	461.3	1090	275.1	1540	194.7
210	1428	660	454.3	1100	272.6	1550	193.4
220	1363	670	447.5	1110	270.1	1560	192.2
230	1304	680	440.9	1120	267.7	1570	191.0
240	1249	690	434.5	1130	265.3	1580	189.8
250	1199	700	428.3	1140	263.0	1590	188.6
260	1153	710	422.3	1150	260.7	1600	187.4
270	1110	720	416.4	1160	258.5	1610	186.2
280	1071	730	410.7	1170	256.3	1620	185.1
290	1034	740	405.2	1180	254.1	1630	183.9
300	999.4	750	399.8	1190	252.0	1640	182.8
310	967.2	760	394.5	1200	249.9	1650	181.7
320	936.9	770	389.4	1210	247.8	1660	180.6
330	908.6	780	384.4	1220	245.8	1670	179.5
340	881.8	790	379.5	1230	243.8	1680	178.5
350	856.6	800	374.8	1240	241.8	1690	177.4
360	832.8	810	370.2	1250	239,9	1700	176.4
370	810.3	820	365.6	1260	238.0	1710	175.3
380	789.0	830	361.2	1270	236.1	1720	174.3
390	768.8	840	356.9	1280	234.2	1730	173.3
400	749.6	850	352.7	1290	232.4	1740	172.3
410	731.3	860	348.6	1300	230.6	1750	171.3
420	713.9	870	344.6	1310	228.9	1760	170.4
430	697.3	880	340.7	1320	227.1	1770	169.4
440	681.4	890	336.9	1330	225.4	1780	168.4
450	666.3	900	333.1	1340	223.7	1790	167.5
460	651.8	910	329.5	1350	222.1	1800	166.6
470	637.9			1360	220.4		

Kilocycles to Meters, or Meters to Kilocycles
(Columns are interchangeable)

1810	165.6	2260	132.7	2710	110.6	3160	94.88
1820	164.7	2270	132.1	2720	110.2	3170	94.58
1830	163.8	2280	131.5	2730	109.8	3180	94.28
1840	162.9	2290	130.9	2740	109.4	3190	93.98
1850	162.1	2300	130.4	2750	109.0	3200	93.69
1860	161.2	2310	129.8	2760	108.6	3210	93.40
1870	160.3	2320	129.2	2770	108.2	3220	93.11
1880	159.5	2330	128.7	2780	107.8	3230	92.82
1890	158.6	2340	128.1	2790	107.5	3240	92.54
1900	157.8	2350	127.6	2800	107.1	3250	92.25
1910	157.0	2360	127.0	2810	106.7	3260	91.97
1920	156.2	2370	126.5	2820	106.3	3270	91.69
1930	155.3	2380	126.0	2830	105.9	3280	91.41
1940	154.5	2390	125.4	2840	105.6	3290	91.13
1950	153.8	2400	124.9	2850	105.2	3300	90.86
1960	153.0	2410	124.4	2860	104.8	3310	90.58
1970	152.2	2420	123.9	2870	104.5	3320	90.31
1980	151.4	2430	123.4	2880	104.1	3330	90.04
1990	150.7	2440	122.9	2890	103.7	3340	89.77
2000	149.9	2450	122.4	2900	103.4	3350	89.50
2010	149.2	2460	121.9	2910	103.0	3360	89.23
2020	148.4	2470	121.4	2920	102.7	3370	88.97
2030	147.7	2480	120.9	2930	102.3	3380	88.70
2040	147.0	2490	120.4	2940	102.0	3390	88.44
2050	146.3	2500	119.9	2950	101.6	3400	88.18
2060	145.5	2510	119.5	2960	101.3	3410	87.92
2070	144.8	2520	119.0	2970	100.9	3420	87.67
2080	144.1	2530	118.5	2980	100.6	3430	87.41
2090	143.5	2540	118.0	2990	100.3	3440	87.16
2100	142.8	2550	117.6	3000	99.94	3450	86.90
2110	142.1	2560	117.1	3010	99.61	3460	86.65
2120	141.4	2570	116.7	3020	99.28	3470	86.40
2130	140.8	2580	116.2	3030	98.95	3480	86.16
2140	140.1	2590	115.8	3040	98.62	3490	85.91
2150	139.5	2600	115.3	3050	98.30	3500	85.66
2160	138.8	2610	114.9	3060	97.98	3510	85.42
2170	138.1	2620	114.4	3070	97.66	3520	85.18
2180	137.5	2630	114.0	3080	97.34	3530	84.94
2190	136.9	2640	113.6	3090	97.03	3540	84.70
2200	136.3	2650	113.1	3100	96.72	3550	84.46
2210	135.7	2660	112.7	3110	96.41	3560	84.22
2220	135.1	2670	112.3	3120	96.10	3570	83.98
2230	134.4	2680	111.9	3130	95.79	3580	83.75
2240	133.8	2690	111.5	3140	95.48	3590	83.52
2250	133.3	2700	111.0	3150	95.18	3600	83.28

Kilocycles to Meters, or Meters to Kilocycles
(Columns are interchangeable)

3610	83.05	4070	73.67	4520	66.33	4980	60.20
3620	82.82	4080	73.49	4530	66.19	4990	60.08
3630	82.59	4090	73.31	4540	66.04	5000	59.96
3640	82.37	4100	73.13	4550	65.89	5010	59.84
3650	82.14	4110	72.95	4560	65.75	5020	59.73
3660	81.92	4120	72.77	4570	65.61	5030	59.61
3670	81.70	4130	72.60	4580	65.46	5040	59.49
3680	81.47	4140	72.42	4590	65.32	5050	59.37
3690	81.25	4150	72.25	4600	65.18	5060	59.25
3700	81.03	4160	72.07	4610	65.04	5070	59.13
3710	80.81	4170	71.90	4620	64.90	5080	59.02
3720	80.60	4180	71.73	4630	64.76	5090	58.91
3730	80.38	4190	71.56	4640	64.62	5100	58.79
3740	80.17	4200	71.39	4650	64.48	5110	58.67
3750	79.95	4210	71.22	4660	64.34	5120	58.56
3760	79.74	4220	71.05	4670	64.20	5130	58.44
3770	79.53	4230	70.88	4680	64.06	5140	58.33
3780	79.32	4240	70.71	4690	63.93	5150	58.22
3790	79.11	4250	70.54	4700	63.79	5160	58.10
3800	78.90	4260	70.38	4710	63.66	5170	57.99
3810	78.69	4270	70.22	4720	63.52	5180	57.88
3820	78.49	4280	70.05	4730	63.39	5190	57.77
3830	78.28	4290	69.89	4740	63.25	5200	57.66
3840	78.08	4300	69.73	4750	63.12	5210	57.55
3850	77.88	4310	69.56	4760	62.99	5220	57.44
3860	77.67	4320	69.40	4770	62.86	5230	57.33
3870	77.47	4330	69.24	4780	62.72	5240	57.22
3880	77.27	4340	69.08	4790	62.59	5250	57.11
3890	77.07	4350	68.92	4800	62.46	5260	57.00
3900	76.88	4360	68.77	4810	62.33	5270	56.89
3910	76.68	4370	68.61	4820	62.20	5280	56.78
3920	76.49	4380	68.45	4830	62.07	5290	56.68
3930	76.29	4390	68.30	4840	61.95	5300	56.57
3940	76.10	4400	68.14	4850	61.82	5310	56.46
3950	75.90	4410	67.99	4860	61.69	5320	56.36
3960	75.71	4420	67.83	4870	61.56	5330	56.25
3970	75.52	4430	67.68	4880	61.44	5340	56.15
3980	75.33	4440	67.53	4890	61.31	5350	56.04
3990	75.14	4450	67.38	4900	61.19	5360	55.94
4000	74.96	4460	67.22	4910	61.06	5370	55.83
4010	74.77	4470	67.07	4920	60.94	5380	55.73
4020	74.58	4480	66.92	4930	60.82	5390	55.63
4030	74.40	4490	66.77	4940	60.69	5400	55.52
4040	74.21	4500	66.63	4950	60.57	5410	55.42
4050	74.03	4510	66.48	4960	60.45	5420	55.32
4060	73.85			4970	60.33		

Kilocycles to Meters, or Meters to Kilocycles
(Columns are interchangeable)

5430	55.22
5440	55.11
5450	55.01
5460	54.91
5470	54.81
5480	54.71
5490	54.61
5500	54.51
5510	54.41
5520	54.32
5530	54.22
5540	54.12
5550	54.02
5560	53.92
5570	53.83
5580	53.73
5590	53.64
5600	53.54
5610	53.44
5620	53.35
5630	53.25
5640	53.16
5650	53.07
5660	52.97
5670	52.88
5680	52.79
5690	52.69
5700	52.60
5710	52.51
5720	52.42
5730	52.32
5740	52.23
5750	52.14
5760	52.05
5770	51.96
5780	51.87
5790	51.78
5800	51.69
5810	51.60
5820	51.52
5830	51.43
5840	51.34
5850	51.25
5860	51.16
5870	51.08
5880	50.99
5890	50.90
5900	50.82
5910	50.73
5920	50.65
5930	50.56
5940	50.47
5950	50.39
5960	50.31
5970	50.22
5980	50.14
5990	50.05
6000	49.97
6010	49.89
6020	49.80
6030	49.72
6040	49.64
6050	49.56
6060	49.48
6070	49.39
6080	49.31
6090	49.23
6100	49.15
6110	49.07
6120	48.99
6130	48.91
6140	48.83
6150	48.75
6160	48.67
6170	48.59
6180	48.51
6190	48.44
6200	48.36
6210	48.28
6220	48.20
6230	48.12
6240	48.05
6250	47.97
6260	47.89
6270	47.82
6280	47.75
6290	47.67
6300	47.59
6310	47.51
6320	47.44
6330	47.36
6340	47.29
6350	47.22
6360	47.14
6370	47.07
6380	46.99
6390	46.92
6400	46.85
6410	46.77
6420	46.70
6430	46.63
6440	46.56
6450	46.48
6460	46.41
6470	46.33
6480	46.27
6490	46.20
6500	46.13
6510	46.06
6520	45.98
6530	45.91
6540	45.84
6550	45.77
6560	45.70
6570	45.63
6580	45.57
6590	45.50
6600	45.43
6610	45.36
6620	45.29
6630	45.22
6640	45.15
6650	45.09
6660	45.02
6670	44.95
6680	44.88
6690	44.82
6700	44.75
6710	44.68
6720	44.62
6730	44.55
6740	44.48
6750	44.42
6760	44.35
6770	44.29
6780	44.22
6790	44.16
6800	44.09
6810	44.03
6820	43.96
6830	43.90
6840	43.83
6850	43.77
6860	43.71
6870	43.64
6880	43.58
6890	43.52
6900	43.45
6910	43.39
6920	43.33
6930	43.26
6940	43.20
6950	43.14
6960	43.08
6970	43.02
6980	42.95
6990	42.89
7000	42.83
7010	42.77
7020	42.71
7030	42.65
7040	42.59
7050	42.53
7060	42.47
7070	42.41
7080	42.35
7090	42.29
7100	42.23
7110	42.17
7120	42.11
7130	42.05
7140	41.99
7150	41.93
7160	41.87
7170	41.82
7180	41.76
7190	41.70
7200	41.64

Kilocycles to Meters, or Meters to Kilocycles
(Columns are interchangeable)

7210	41.58	7650	39.19	8090	37.06	8520	35.19
7220	41.53	7660	39.14	8100	37.02	8530	35.15
7230	41.47	7670	39.09	8110	36.97	8540	35.11
7240	41.41	7680	39.04	8120	36.92	8550	35.07
7250	41.35	7690	38.99	8130	36.88	8560	35.03
7260	41.30	7700	38.94	8140	36.83	8570	34.98
7270	41.24	7710	38.89	8150	36.79	8580	34.94
7280	41.18	7720	38.84	8160	36.74	8590	34.90
7290	41.13	7730	38.79	8170	36.70	8600	34.86
7300	41.07	7740	38.74	8180	36.65	8610	34.82
7310	41.02	7750	38.69	8190	36.61	8620	34.78
7320	40.96	7760	38.64	8200	36.56	8630	34.74
7330	40.90	7770	38.59	8210	36.52	8640	34.70
7340	40.85	7780	38.54	8220	36.47	8650	34.66
7350	40.79	7790	38.49	8230	36.43	8660	34.62
7360	40.74	7800	38.44	8240	36.39	8670	34.58
7370	40.68	7810	38.39	8250	36.34	8680	34.54
7380	40.63	7820	38.34	8260	36.30	8690	34.50
7390	40.57	7830	38.29	8270	36.25	8700	34.46
7400	40.52	7840	38.24	8280	36.21	8710	34.42
7410	40.46	7850	38.19	8290	36.17	8720	34.38
7420	40.41	7860	38.15	8300	36.12	8730	34.34
7430	40.35	7870	38.10	8310	36.08	8740	34.30
7440	40.30	7880	38.05	8320	36.04	8750	34.27
7450	40.24	7890	38.00	8330	35.99	8760	34.23
7460	40.19	7900	37.95	8340	35.95	8770	34.19
7470	40.14	7910	37.90	8350	35.91	8780	34.15
7480	40.08	7920	37.86	8360	35.86	8790	34.11
7490	40.03	7930	37.81	8370	35.82	8800	34.07
7500	39.98	7940	37.76	8380	35.78	8810	34.03
7510	39.92	7950	37.71	8390	35.74	8820	33.99
7520	39.87	7960	37.67	8400	35.69	8830	33.95
7530	39.82	7970	37.62	8410	35.65	8840	33.92
7540	39.76	7980	37.57	8420	35.61	8850	33.88
7550	39.71	7990	37.52	8430	35.57	8860	33.84
7560	39.66	8000	37.48	8440	35.52	8870	33.80
7570	39.61	8010	37.43	8450	35.48	8880	33.76
7580	39.55	8020	37.38	8460	35.44	8890	33.73
7590	39.50	8030	37.34	8470	35.40	8900	33.69
7600	39.45	8040	37.29	8480	35.35	8910	33.65
7610	39.40	8050	37.25	8490	35.31	8920	33.61
7620	39.35	8060	37.20	8500	35.27	8930	33.57
7630	39.30	8070	37.15	8510	35.23	8940	33.54
7640	39.24	8080	37.11			8950	33.50

Kilocycles to Meters, or Meters to Kilocycles
(Columns are interchangeable)

8960	33.46
8970	33.42
8980	33.39
8990	33.35
9000	33.31
9010	33.28
9020	33.24
9030	33.20
9040	33.17
9050	33.13
9060	33.09
9070	33.06
9080	33.02
9090	32.98
9100	32.95
9110	32.91
9120	32.88
9130	32.84
9140	32.80
9150	32.77
9160	32.73
9170	32.70
9180	32.66
9190	32.62
9200	32.59
9210	32.55
9220	32.52
9230	32.48
9240	32.45
9250	32.41
9260	32.38
9270	32.34
9280	32.31
9290	32.27
9300	32.24
9310	32.20
9320	32.17
9330	32.13
9340	32.10
9350	32.07
9360	32.03
9370	32.00
9380	31.96
9390	31.93
9400	31.90
9410	31.86
9420	31.83
9430	31.79
9440	31.76
9450	31.73
9460	31.69
9470	31.66
9480	31.63
9490	31.59
9500	31.56
9510	31.53
9520	31.49
9530	31.46
9540	31.43
9550	31.39
9560	31.36
9570	31.33
9580	31.30
9590	31.26
9600	31.23
9610	31.20
9620	31.17
9630	31.14
9640	31.10
9650	31.07
9660	31.04
9670	31.01
9680	30.97
9690	30.94
9700	30.91
9710	30.88
9720	30.85
9730	30.81
9740	30.78
9750	30.75
9760	30.72
9770	30.69
9780	30.66
9790	30.63
9800	30.59
9810	30.56
9820	30.53
9830	30.50
9840	30.47
9850	30.44
9860	30.41
9870	30.38
9880	30.35
9890	30.32
9900	30.28
9910	30.25
9920	30.22
9930	30.19
9940	30.16
9950	30.13
9960	30.10
9970	30.07
9980	30.04
9990	30.01
10000	29.98